In a running streamlet at the foot of the San Bernardino Mountains, discovered by W. G. Wright, and seen there by me also in November.—With *J. asper* the only species of our flora with rough epidermis. It may be compared with loose panicled forms of *J. acuminatus* var. *debilis*, but is readily distinguished by its roughness and its 6 stamens, and then, no forms of *J. acuminatus* occur west of the great plains.

MONANTHOCHLOE LITTORALIS, Engelm., heretofore only known from coasts of the Gulf of Mexico, I found on the Bay of San Diego, Cal., where it grows with that curious *Batis maritima*, already noticed there 30 years ago by Dr. Parry.

Is Chenopodium viride, L., a good species?—It may not be advisable for amateurs in natural science to be tinkering with the limits of species, yet I cannot forbear, after more than a score of years of acquaintance, adding my honest convictions on the relation of the above named species with *Chenopodium album*, L. It was in my boyhood days, that, with hoe in hand I was called upon to wage a war of extermination on the "milfoil," or "mildew," as it is generally called by our farmers; and this, as I remember it now, was always the broad leaved form (*C. album*), and was to be found in almost every field and fence-row. During the last ten years the implement has been the botanical text-book, and I have had the pleasure of seeing the old enemy gradually growing less common. But its place is now being taken by a hardier, earlier-blooming and narrower-leaved form (*C. viride*, L.), which does not show any disposition, so far as I can discern, to become intermingled with its predecessor and weaker brother. Our modern authorities* appear to regard *C viride*, L. as a deep green, narrower-leaved and more mealy form of *C. album*, L.; while by some of the earlier authorities this order is reversed and *C. album*, L. is regarded as possibly not a good species, and that it may simply be a variety of *C. viride*, L. The main distinctions given are, that in the former, *especially when full grown*, the stem and leaves are a paler green, that the flowers are more dense on the branches, and that it blooms in July and August. Both are said to be extensively used as potherbs when in the young and tender stage.†

The following are the differences I have observed, and are my reasons for considering them distinct species:

(a) *C. viride* blooms from four to six weeks earlier.
(b) Its general growth is more erect, the branches assuming more nearly the vertical position.
(c) The whole plant is a deeper green.
(d) The leaves are narrower, varying from ovate-lance late to

*Gray, Manual of the Botany of Northern U. S., Fifth Edition; Watson, Revision of N. A. Chenopodiaceæ; Wood, Class-Book of Botany.

†See a German encyclopedic work of botany by Dr. G. W. F. Pancer, published about one hundred years since, in fifteen volumes, with copper-plates, and based on Houttuyn's translation and notes of the thirteenth edition of *Carolus A. Linne's System of Plants*. This is a monumental work of its period, and gives a scientific and popular description of all the plants then known.

broadly lanceolate, while those of *C. album*, L. are rhomboid. Both species drop the larger leaves early, many of them even before blooming. It is to this fact that I attribute the cause of our authorities regarding them as one species; when the leaves have fallen, so that but few of the smaller ones are left among the flowers, they are not so readily distinguished.

(e) These distinctions are constant, the two forms do not show a disposition to shade into one another. Among thousands of plants observed during the last ten summers, there never has been any doubt as to which species a given specimen belonged.

(f) *C. viride*, L., is a hardier plant, and a later immigrant into the Wabash valley; while it is annually increasing in abundance, its congener is gradually becoming less common.

(g) In regard to the mealiness, I have observed little constant distinction; probably *C album*, L. is more mealy, especially among the flowers. The flowers are also a little larger in this species.—DR. J. SCHNECK.

New Species of Fungi, by Chas. H. Peck.—PUCCINIA MIRABILISSIMA.—Spots small and dot-like or larger and subrotund, black or blackish brown above; sori hypophyllous, few, small, pale reddish-brown; *stylospores* subglobose obovate or pyriform, obtuse, very minutely rough, .0009–.0013 of an inch long, .0008–.0009 of an inch broad, pedicel colorless, easily separating from the spore when mature; *teleutospores* intermingled in the same sorus with the stylospores, elliptical, obtuse, constricted at the septum, minutely rough, .0012–.0013 of an inch long, .0009–.001 of an inch broad, pedicel very long, colorless.

Living or languishing leaves of *Berberis repens*. City Creek Canon, Utah, July, *M. E. Jones*.

In this singular *Puccinia* both kinds of spores are intermingled in the same sorus, but the *Uredo* or stylospores are much more numerous than the others. They appear to be joined to their pedicels by an articulation, and when mature they easily separate from these like *Trichobasis* spores, although in general appearance they closely resemble the spores of many species of *Uromyces*. The pedicels of the *Puccinia* or teleutospores are usually two or three times as long as the spores. There are from one to six sori on a spot.

PUCCINIA JONESII.—Spots pallid, indefinite; *hymeniferous fungus* with peridia short, crowded, wide mouthed, crenulate on the margin, the spores subglobose, orange yellow, .0008–.001 of an inch broad, *teleutosporous fungus* with sori mostly hypophyllous, rarely a few epiphyllous, scattered, at first covered by the epidermis, at length exposed, subpulverulent, black, the spores elliptical or oblong-elliptical, obtuse, substriate, minutely rough, scarcely constricted at the septum, .0012–.0016 of an inch long, .0008–.0009 of an inch broad, the pedicel very short.

Living leaves of *Ferula multifida* and *Peucedanum simplex*. Utah, May and June.